

**What Is Claimed Is:**

1. A method for measuring an absolute steering angle of a steering shaft for a vehicle using a first rotatable body and a second rotatable body that rotate together with the steering shaft of the vehicle at a predetermined rotation ratio, respectively, the method comprising the steps of:

organizing a table by matching a plurality of relative rotational angle pairs ( $\Psi'$ ,  $\theta'$ ), wherein  $\Psi'$  is a relative rotational angle of the first rotatable body, and  $\theta'$  is a relative rotational angle of the second rotatable body, with respective absolute steering angles,  $\Phi$ s, corresponding to each of the relative rotational angle pairs;

obtaining a  $\Psi_M'$  value by measuring the relative rotational angle  $\Psi'$  of the first rotatable body and obtaining a  $\theta_M'$  value by measuring the relative rotational angle  $\theta'$  of the second rotatable body by means of angle sensors whose measurement ranges are  $\Omega$ s; and

obtaining an absolute steering angle  $\Phi$  of the steering shaft corresponding to the measured relative rotational angle pair ( $\Psi_M'$ ,  $\theta_M'$ ) by looking up the table.

2. The method according to claim 1, wherein the obtaining a corresponding absolute steering angle  $\Phi$  comprises sub-steps of:

obtaining from the table two consecutive pairs of relative rotational angle having the measured relative rotational angle pair ( $\Psi_M'$ ,  $\theta_M'$ ) therebetween, and two absolute steering angles corresponding to respective pairs; and

obtaining a first absolute steering angle  $\Phi_{M1}$  by applying two relative rotational angles of the first rotatable body included in the two pairs of the relative rotational angle, the two absolute steering angles corresponding to respective pairs, and the  $\Psi_M'$ , to an interpolation equation.

3. The method according to claim 1, wherein the step of obtaining a corresponding absolute steering angle  $\Phi$  comprises sub-steps of:

obtaining from the table two consecutive pairs of relative rotational angle  
5 having the measured relative rotational angle pair ( $\Psi_M'$ ,  $\theta_M'$ ) therebetween, and two absolute steering angles corresponding to respective pairs;

obtaining a first steering angle  $\Phi_{M1}$  by applying the two relative rotational angles of the first rotatable body included in the two pairs of the relative rotational angle, the two absolute steering angles corresponding to respective pairs, and the  $\Psi_M'$ , to an  
10 interpolation equation;

obtaining a second absolute steering angle  $\Phi_{M2}$  by applying the two relative rotational angles of the second rotatable body included in the two pairs of the relative rotational angle, the two absolute steering angles corresponding to respective pairs, and the  $\theta_M'$ , to the interpolation equation; and

15 taking the mean value of the  $\Phi_{M1}$  and the  $\Phi_{M2}$ .